

REMARKS

In accordance with the foregoing, claims 1, 3 and 5-8 have been amended. No new matter is presented and, accordingly, approval and entry of the foregoing amended claims are respectfully requested.

STATUS OF CLAIMS

Claims 3, 4, 6 and 8 are allowed.

Claims 1-2, 5 and 7 are rejected.

Claims 1-8 are pending and under consideration.

ITEM 2: OBJECTION TO CLAIM 3

The foregoing amendments to claim 3 are responsive to the objection of Item 2 of the Action. In light thereof, both "multiplication and orthogonal are required as to the expression in line 3 and, as so the expression in line 19, in the claim is now amended. (See first line of last paragraph). Both "and inverse orthogonal transformation and overlapping processing (unit) are present. Accordingly, it is submitted that the objection to claim 3 is overcome and accordingly withdrawal of the objection is respectfully requested.

ITEM 4: REJECTION OF CLAIMS 1-2, 5 AND 7 UNDER 35 U.S.C. 103 (a) AS BEING UNPATENTABLE OVER MATSUO (USP 20020075818)

The "echo canceling system" according to the amended claim 1 is comprises "an arrival time detecting portion for detecting a respective echo arrival time of each of plural echo paths based on a reference signal and an echo signal; pseudo-echo calculating filters for calculating as many pseudo-echo signals as the detected arrival times, the number of the pseudo-echo calculating filters being equal to that of the arrival times; an adding not for overlapping the calculated pseudo-echo signals as many as the arrival times to obtain an overall pseudo-echo signal; and a subtracting unit for subtracting the overall pseudo-echo signal from the echo signal."

The system as recited in the amended claim 1 accordingly achieves an excellent effect, in that "by detecting the echo arrival time for each echo path and generating the pseudo-echo signal according to this echo arrival time, it is possible to cancel echo in each echo signal effectively even when there are a plurality of different echo paths" as described at page 6, lines 5 to 8 in the instant specification.

On the other hand, the cited Publication '818 to Matsuo, relied upon in support of the §103 rejection of claims in Item 4 of the Action, is directed to a single echo path and thus is incapable of, and fails, to detect respective echo arrival times of each of plural echo paths and likewise is incapable of, and fails, to calculate as many pseudo-echo signals as the detected arrival times, to overlap the calculated pseudo-echo signals as many as the arrival times to obtain an overall pseudo-echo signal, and to subtract the overall pseudo-echo signal from the echo signal.

In contrast, the "echo canceling system" according to the amended claim 1 includes the above-described operation components affording the provision of the above discussed functions and therefore produces a remarkable effect that "it is possible to cancel echo in each echo signal effectively even when there are a plurality of different echo paths". That function clearly is not attained by Publication '818.

As described above, it is clear that the amended claim 1 is patentable over the disclosure of the Matsuo '818 publication.

Independent claims 5 and 7 share these patentable distinctions of independent claim 1 and accordingly, likewise, distinguish over Matsuo '818.

Independent claims 3, 6 and 8, along with dependent claim 4/3, are allowed in the current Action; the amendments to the foregoing independent claims are for clarification and, in the case of claim 3, overcome the objection thereto in the Action without altering the substance of the claim recitations - - and, accordingly, are submitted to remain in the allowable state as specified in the Action.

CONCLUSION

In accordance with the foregoing, it is submitted that all pending claims patentably distinguish over the references and rejections of record. There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

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If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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